REMARKS

Claims 1-16 are all the claims pending in the application. By this Amendment, Applicant broadens the scope of claims 1 and 7 and moves a portion of the features into new claims 15 and 16. Since the Examiner has already considered the features recited in claims 15 and 16, Applicant respectfully submits that these added claims require no further search by the Examiner. Claim 1 is amended to further clarify the invention. Since claim 7 already recites similar features, Applicant respectfully submits that the amendment to claim 1 does not require further search by the Examiner.

Summary of the Office Action

The Examiner withdrew the previous rejections. The Examiner, however, found new grounds for rejecting the claims.

Rejections under 35 U.S.C. § 112, second paragraph

Claims 1-14 are rejected under 35 U.S.C. § 112, second paragraph. In particular, the Examiner alleges that the feature of "at least partially independent" is indefinite in that the Examiner cannot ascertain the "degree" of the independence of the objects (*see* page 2 of the Office Action). Since these unique features are moved to claims 15 and 16, this rejection is applicable to claims 15 and 16. Applicant respectfully traverses these grounds of rejection in view of the following comments.

Applicant respectfully submits that the claims are not drafted for a layman but for one of ordinary skill in the art. One of ordinary skill in the art would readily recognize that at least partially independent objects can work at least in part independent from one another object.

To further Examiner's understanding only and not by way of a limitation, the following example is provided. A first object located on a first computer and executes processes A, B, C, and D. A second object is located on a second computer and executes processes X, Y, and Z. The first object can execute processes A and B independently but for the processes C and D, the first object needs the results of the processes X and Y executed by the second object. Accordingly, the first object is partially independent or autonomous *i.e.*, the processes A and B can be performed independently but processes C and D require the results from the second object. That is, some processes of the object are performed autonomously while other parts of the object may require cooperation with other objects. The degree of independence will depend on the type of objects and modules executed by the object and interdependence of the objects will vary. Accordingly, a "degree" of independence cannot be specified. If the language is as precise as the subject matter permits, the statute (35 U.S.C. § 112, second paragraph) demands no more. *Shatterproof Glass Corp. v. Libbey Owens Ford Co.*, 758 F.2d 613, 225 USPQ 634 (Fed. Cir. 1985). Moreover, the breadth of a claim is not to be equated with indefiniteness. MPEP § 2173.04; *In re Miller*, 441 F.2d 689, 169 USPQ 597 (CCPA 1971).

Applicant respectfully submits that the claim language is definite and that one of ordinary skill in the art would have understood the meaning of the phrase "at least partially independent". In view thereof, Applicant respectfully requests the Examiner to withdraw this rejection. If the Examiner maintains the rejection with respect to the terminology being used, Applicant respectfully invites the Examiner to propose alternative language, as suggested by MPEP § 2173.05(a).

Claim Rejection under 35 U.S.C. § 102(e)

Claims 1-6 and 13 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,205,122 to Sharon et al. (hereinafter "Sharon"). Applicant respectfully traverses this rejection in view of the following comments.

To be an "anticipation" rejection under 35 U.S.C. § 102, the reference must teach every element and recitation of the Applicant's claims. Rejections under 35 U.S.C. § 102 are proper only when the claimed subject matter is identically disclosed or described in the prior art. Thus, the reference must clearly and unequivocally disclose every element and recitation of the claimed invention.

Of these rejected claims, only claim 1 is independent. Among a number of unique features, claim 1 recites: "wherein each of said software agents comprises at least a piece of an object code of a distributed computing, and wherein, when a software agent from said software agents receives the new communication module, the software agent communicates using the new communication module via a new communication means with another software agent from said software agents, thereby changing the communication means between the two software agents." The Examiner asserts that claim 1 is directed to a system for changing the communication means and is anticipated by Sharon. Applicant respectfully disagrees.

Sharon discloses a system and a method for automatic detection of physical network topology, by correlating information from computers connected to the network. This information is gathered through the operation of a plurality of agents, which are distributed throughout the network and which are operated by a computer connected to the network. The

agents may exchange information in order to at least partially determine the physical topology of the network (*see* Abstract).

The Examiner alleges that Sharon's col. 6, lines 39 to 41 and col. 10, lines 25 to 35 disclose the unique features of claim 1. Col. 6, lines 39 to 49 recite:

> [m]ore preferably, as described in greater detail below, agents 14 communicate with each other, in addition to communicating with CME 12. Such inter-agent communication enables agents 14 to collect information about the physical topology of the network from interactions with other agents 14, rather than relying solely on the instructions of CME 12. Thus, although CME 12 could optionally direct all aspects of the communication of agents 14 in order to determine the physical topology map of the network, preferably agents 14 communicate with each other at least quasi-independently.

That is, the above-quoted passage of Sharon only discloses that the agents may communicate with each other somewhat independently or with the help of central management engine (CME) 12. However, the above noted passage does not teach or suggest the software agents receiving a new communication module and communicating with the other agents using the new communication via new communication means.

Next, col. 10, lines 25 to 35 of Sharon recites:

> Overall control of agent 14 is preferably performed by a communication service module 48, which listens to a special port for commands from CME 12. These commands might include, for example, a command to begin collecting and transmitting information, or

> alternatively a command to stop such transmission, as previously described. Communication service module 48 receives each such command and parses the command in a format for agent 14. Communication service module 48 then alters the function of one or more of the modules of agent 14 according to the received command.

That is, the above-quoted passage of Sharon only discloses that communication service module 48 receives and parses commands for the agent 14. Moreover, the communication service module may alter the functions of one or more modules in accordance with received commands. The received commands are such as transmit information or stop transmitting information. However, the above noted passage does not teach or suggest the software agents receiving a new communication module *i.e.*, a new communication service module 48 and communicating with the other agents using the new communication via new communication means. That is, with respect to communication between agents, Sharon only discloses the conventional technique, where agents communicate via communication service module 48. In Sharon, however, there is no teaching or suggestion that the communication modules may changed.

Sharon discloses that the agent 14 is operated by any type of end node device. The agent 14 executes a network monitor 36 which interacts with the network card, or other network connector hardware device, of the computer which operates agent 14. The network monitor 36 both detects any information received through the network card, and is able to instruct the network card to operate in promiscuous mode. In the promiscuous mode, the network card receives all packets traveling through the network segment, even if these packets are not

specifically addressed to that particular network card itself (Figs. 3A and 3B; col. 9, lines 18 to 35).

That is, Sharon discloses an agent implemented on a hardware such as a network card executing monitoring operation of the packets received by the card. Sharon, however, does not disclose the switching of the communication module to communicate between the agents via another communication means.

Moreover, the Examiner acknowledges that Sharon does not disclose the agent being at least a piece of an object code of a distributed computing. For the definition, the Examiner turns to the APA (*see* page 3 of the Office Action). The Examiner, however, has not explained why this particular definition is used to define an agent of Sharon. A software agent may be defined as software that acts as an agent for another as in a relationship of agency, *see* wikipedia.org, last visited October 27, 2005 or dictionary.com, last visited October 27, 2005. Accordingly, the Examiner's reliance on the APA is improper. That is, there is no disclosure that the agents in Sharon is a piece of an object code of a distributing computing.

Therefore, "wherein each of said software agents comprises at least a piece of an object code of a distributed computing, and wherein, when a software agent from said software agents receives the new communication module, the software agent communicates using the new communication module via a new communication means with another software agent from said software agents, thereby changing the communication means between the two software agents," as recited in claim 1 is not disclosed by Sharon, which lacks havin new communication module

to communicate with another agent over new communication menas and which also lacks any disclose of the software agent comprising a piece of an object code of a distributed computing.

For at least these exemplary reasons, Applicant respectfully submits that independent claim 1 is patentably distinguishable from Sharon. Applicant therefore respectfully requests the Examiner to withdraw this rejection of independent claim 1. Also, Applicant respectfully submits that claims 2-6, 12, and 13 are allowable at least by virtue of their dependency on claim 1.

Claim Rejections under 35 U.S.C. § 103(a)

Claims 7-14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sharon in view of U.S. Patent No. 6,927,869 to Simpson et al. (hereinafter "Simpson"). Applicant respectfully traverses in view of the following comments.

The Examiner alleges that one of ordinary skill in the art would have been motivated to combine Sharon's method with Simpson, to recover from a failure in a computer network by informing the server of a failure and receiving appropriate data to correct the failure to resume normal operation (*see* page 5 of the Office Action). Applicant respectfully submits that the references cannot be combined and one of ordinary skill in the art would not have been motivated to combine the references. As explained above, Sharon is directed to monitoring the status of the network and only discloses conventional communication between agents. Simpson is completely unrelated reference that deals with purchasing and printing documents on the internet. It is respectfully noted that one of ordinary skill in the art confronted with the system of Sharon would never have turned to this unrelated reference (Simpson). By way of an example,

Applicant respectfully notes that there is no overlap in the field of search performed by the USPTO for these two references. Moreover, they address different problems. But for the present invention, there is no motivation to combine these references.

Moreover, claim 7, among a number of unique features, recites: "said software agents sending messages to a communication server informing the server of said breakdown; said server sending communication modules to said software agents, said communication modules being designed to give access to a different communication means." Applicant has already demonstrated that Sharon fails to teach or suggest switching communication means between agents via communication modules. The Examiner further acknowledges that in Sharon the agents do not communicate to the server of a breakdown (*see* page 5 of the Office Action).

Simpson does not cure the deficient teachings of Sharon. Simpson discloses a print agent 10 but Simpson fails to disclose communication between agents. Instead, the agent 10 communicates with the server when a portion of a document is not properly printed. In response to this communication, the server sends the agent improperly printed portion of the document for reprinting (col. 3, line 63 to col. 4, line3). That is, Simpson fails to teach or suggest any type of communication between agents. Accordingly, Simpson fails to teach or suggest switching communication modules of the agents so that to communicate with each other over a different communication means. Moreover, the print agent does not notify the server of a breakdown. Instead, in Simpson, the print agent notifies the printer of a print error and in response, the server reprting the portion that failed to print properly.

Therefore, "said software agents sending messages to a communication server informing the server of said breakdown; said server sending communication modules to said software agents, said communication modules being designed to give access to a different communication means," as set forth in claim 7 is not taught or suggested by the combined teachings of Sharon and Simpson, which lack notifying the server of a breakdown and having various communication means for commpunicating with agents. For at least these exemplary reasons, Applicant respectfully submits that claim 7 is patentable over the combined teachings of Sharon and Simpson. It is appropriate and necessary for the Examiner to withdraw this rejection of claim 7. Claims 8-11 and 14 are patentable at least by virtue of their dependency on claim 7.

New Claim

Applicant adds claims 15 and 16, which recite the canceled features of claims 1 and 7, respectively. Claims 15 and 16 are patentable at least by virtue of their dependency on claims 1 and 7, respectively.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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